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March 10, 2006

Melissa M. Dargis
 Assistant Chief of Planning
 Department of Community Development
 Fauquier County
 40 Culpeper Street
 Warrenton, Virginia 22186
 Re: REZN05-LE-001, SPEX05-LE-008, Freedom Place

Dear Melissa:

This letter contains the responses to the comments provided by the County Engineer and VDOT. The comments from the County Engineer dated February 23, 2006 and received on the same date have been formatted in the table below for ease of reference:

<p>Low Impact Development (LID) – the first and probably most important aspect of LID is to preserve natural drainage areas in their natural state. The applicant has done a good job of preserving the Bowens Run corridor, however, there are four significant drainage swales and a spring within the densely developed areas that should be preserved in their natural state. These were discussed previously with the engineer but are not preserved in this plan.</p>	<p>A modification has been submitted to the county to address the location of Natural Drainage/ Channels on site. The area identified as a spring by the county engineer has yet to be verified as an actual spring. The site will be investigated by the applicant's geotechnical engineer and if deemed to be a spring, the lot layout will be modified to protect the spring during the Plat/Site Plan process.</p>
<p>The SWM/BMP's should be provided for the proposed "community use" area (possible fire department) with this development.</p>	<p>A note has been added to the CDP to reflect that a SWM Pond will be provided to serve the proposed Fire Department. Until such time as final development plans are provided to the Applicant for the fire station and the actual SWM needs can be calculated, the pond area will function as a sediment control pond.</p>
<p>The alleys are shown in such a way that they will become stormwater collection areas. (Page 18 Planning and Design Guidelines) The alleys should be crowned and ditches or storm sewer pipes should be provided. Significant icing and flooding could occur with</p>	<p>The Applicant agrees to revise the alley cross section, as discussed in the staff meeting, to show a constant cross slope with storm sewer inlets provided along the lower curb side, which will address this concern.</p>

the design presented.	
1. Under no circumstances shall any use, activity, fill, and/or development within the floodplain adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch or any other drainage facility or system which would increase flood heights and/or velocities on adjacent properties.	A note has been added to the CDP to address this comment.
2. The proposed connections to Route 28 is to line up with the road connections on the south side of Route 28 as depicted on the final construction of Wexford Mews. These connections need to line up to facilitate traffic movement across Route 28.	According to the research completed before designing the CDP, the Church Street and the SW Access intersections along Route 28 were located as to align with the Wexford Mews plans.
3. The following conditions should be required for the special exception for fill in the floodplain:	
a. The crossing shall be designed to accommodate all Federal, State, and Local requirements and shall incorporate river-training and counter-sinking techniques	This is understood and accepted as a condition by the Applicant.
b. The crossing shall not be sized any larger than necessary to convey the applicable design storms for the relevant category of roadway (based on traffic estimates) unless mutually agreed to and requested by the Fauquier County Engineering Office and VDOT.	This is understood and accepted as a condition by the Applicant.
c. In all cases, proposed crossings of the FEMA floodplain shall be aligned and designed to traverse floodplains and the natural stream in locations where disturbance to the floodplain is minimized. (i.e. – in areas where floodplain top widths are the smallest and where the natural stream can be crossed perpendicularly without requiring natural stream channel relocation unless otherwise directed by the County Engineer.)	The crossing to the proposed FEMA Floodplains will be in substantial conformance with the layout shown on the CDP.
d. Should multiple structures be required to accommodate the projected discharges, the primary cell of the crossing shall be sized to	This is understood and accepted as a condition by the Applicant.

conform to the natural stream characteristics (as defined by stream width, existing bed & banks, invert elevations, etc.) These characteristics must be field surveyed and be included with final plan submittal. The primary cell shall be located in the actual location of the incised streambed. Additional cells of the crossing must be designed to only be activated at such time as the overbank region would normally be activated with higher volumes of stormwater runoff (as determined by the County Engineer). Invert elevations of the additional cells shall be established no lower than the natural overbank elevation where they will be placed. Should the cells be constructed as a single structure, the crown elevation of all cells must be designed to match each other. Depending on the individual site conditions, the additional cells may be constructed separately from the primary cells but must meet Fauquier County and VDOT requirements at the time of final design review	
e. A detailed flood study must be prepared to County Specifications and submitted to FEMA for CLOMR/LOMR processing. These items must be bonded with Fauquier County until complete	This is understood and accepted as a condition by the Applicant. A Flood Study and CLOMR will be completed prior to Final Subdivision Plan approval for 1 st section submitted—LOMR is done AFTER development is done as an Asbuilt and Final Map Rev
f. Proper permits are to be obtained from DEQ, DOE, and/or VMRC for any work in waters of the US and/or the state.	This is understood and accepted as a condition by the applicant.
g. The CLOMR must be approved prior to the approval of the final construction plans	This is understood and accepted as a condition by the Applicant.
4. Stormwater management pond embankments are not to be in the floodplain.	This is understood and accepted as a condition by the Applicant. Please reference the CDP, a note has been added to reflect this comment.
5. All applicable State and Federal permits are to be filed with the first submission of the Final construction Plans. This includes the COE/DEQ wetlands permit.	This is understood and accepted as a condition by the Applicant. Please reference the CDP, a note has been added to reflect this comment.

<p>6. The County recommends that no below grade basements be constructed on soils with high water table due to wetness unless the foundation drainage system of the structure is designed by a licensed professional engineer to assure a dry basement and preclude wet yards and recirculation of pumped or collected water. <i>Unless, in the opinion of the County Engineer, the topography of the lot in relation to the overlot-grading plan precludes grading the site to drain the basement to daylight, all basements shall be designed to gravity daylight without assistance from mechanical means. All discharged water (mechanical or gravity) must be conveyed to the subdivision stormwater collection system and discharged through the stormwater management facilities. Drainage easements, where necessary, shall be placed on the final plat. A note shall be placed on the final plat stating that "Basements are not recommended in mapping units 5A, 14B, 74B, 78A, and 79A. Basements in these mapping units are subject to flooding due to high seasonal water tables. Sump systems may run continuously, leading to possible premature pump failure."</i></p>	<p>A proffer has been added to address the condition of below grade basements in areas of potentially high water table.</p> <p>The Applicant acknowledges the County Engineer's concerns pertaining to the design of the subsurface systems to deal with potentially high groundwater. All designs and notes that will be required on Final Plats will be coordinated with the County's Engineering staff upon completion of a Geotechnical report which will be required prior to final plat / site plan approval.</p>
<p>7. Applicant should provide 100 year detention and 100 year overland relief to help mitigate against downstream flooding.</p>	<p>Per Sect. 4.1.7 of SWM Code, the applicant will control the 2 & 10 yr storm events in the proposed SWM Facilities. In addition, the Applicant has agreed to provide overland relief for the 100 year storm event.</p>
<p>8. No stormwater runoff generated from new development shall be discharged into jurisdictional wetland without adequate treatment.</p>	<p>This is understood and accepted by the Applicant. Please reference the CDP, a note has been added to reflect this comment.</p>
<p>9. An overlot grading plan is to be provided as part of the Final Construction Plans. It is to show downspout discharges and sump pump discharges.</p>	<p>The Applicant will provide an overall lot grading plan as part of the Final Construction Plans. However, the locations of downspouts and sump pump discharges will not be shown on the overall lot plan due to the optional architecture that will be available for each lot.</p>

	Individual Lot grading plans will be provided with the building permit applications that will show downspout & sump pump locations along with detailed lot grading that can be reviewed for drainage purposes.
10. A second access point should be provided prior to the 100 th lot being recorded.	See Proffer 11.9, which addresses this comment.
11. Proof of provisions for adequate fire flow as outlined by the Office of Emergency Services will be required with the first submission of the Final Construction Plans. Houses are not to be located in existing swales or streams. These areas shall be preserved to the maximum extent practicable.	A Water Study will be prepared and submitted with the Final Construction Plans. See response above with regards to the Natural Drainage/Channel locations onsite and the siting of lots.
12. Houses are not to be located in existing swales or streams. These areas shall be preserved to the maximum extent practicable.	See response above with regards to the Natural Drainage/Channel locations onsite and the siting of lots.
13. It appears that almost all of the area east of Bowen's Run has soils characterized as having a high water table. The area west of Bowen's Run has roughly 50% of the soils that are characterized as having a high water table.	See response under #6 above.
14. Site distance is to be provided for alley/street connections. Site distance will also be necessary when entering alley from the garages. Garages should be set back away from the alley so a driver can see when backing out of a garage before entering alley.	This is understood and acknowledged by the Applicant. Please reference the CDP, a note has been added to reflect this comment.
15. If the alley does not have an outlet, some type of turn around is to be provided.	Please reference page 27 of the "Freedom Place: Planning and Design Guidelines and PRD Modifications." A modification is requested to permit dead end alleys in certain places, especially along Church Street, in order to limit excessive curb cuts. A maximum of three residential units access each of the dead ends. This coupled with restrictions in the HOA documents prohibiting conversion of garage spaces for uses other than parking, will provide sufficient space for turn arounds.
16. Infiltration trenches are not allowed for	This is understood and acknowledged by the

SWM/BMP facilities in residential subdivisions.	Applicant. No Infiltration facilities are proposed with the plan.
17. WSA's permission will be required to relocate their access roads.	This is understood and acknowledged by the applicant.
18. Each phase of the subdivision must meet the minimum requirements of the SWM Ordinance as well as the overall project	An overall SWM/BMP plan has been developed for the Rezoning. The individual sections of the subdivision will be designed in substantial conformance with the CDP and calculations will be provided with the final construction plans to show that the requirements of the SWM ordinance have been met for the overall project. The Applicant will not proceed with a phase of the subdivision without either providing SWM in that section or having provided it in a prior phase of the subdivision process.
19. The termination point of existing Bower's Run Road should have a cul-de-sac.	VDOT has requested a hammerhead terminus at this location.
20. Credit for vegetative filter strips (buffers) are to meet the design guide lines in the Virginia Stormwater Management Handbook Minimum Standard 3.14. The phosphorus removal credit is 10%.	This is understood and acknowledged by the Applicant. The calculations have been revised accordingly.

The following responses are based on VDOT comments dated January 18th, 2006 on the Traffic Impact Study for Freedom Place (dated December 19th, 2005):

Comment	Response
1. After further review of the internal capture rates used in the Traffic Impact Analysis and the <u>Land Development Manual</u> , VDOT policy indicates on Chapter 6-4 that shopping centers, and general office building with support services already have allowed for internal capture in their traffic distributions and should no include any	As stated in the <u>Land Development Manual</u> Chapter 6-5 Policy Section Number 4, "In case the proposed multi-use development has residential and non-residential components, a 15% reduction in the trip generation will be allowed." The Traffic Group, Inc. used an ITE approved updated methodology to determine internal capture and used 14%. Therefore, we under estimated the internal capture by 1%.

<p>additional internal capture. Therefore, the use of ITE codes 710 and 820 as used in this Traffic Impact Analysis should not allow for any additional capture, and those trips should be added to the total trips on Exhibit 8B on page 23. The comment response indicates that the Land Development Manual recommends using the most up-to-date and reliable information, but this is only for trip generation not internal capture. Internal capture was also applied to the residential units which also appears inconsistent with VDOT policy. Chapter 6-5 item 3 indicates that further reductions can be taken on a case-by-case basis, but only with evidence of a bonafide traffic study of a similar development.</p>	
<p>2. We have also looked at whether taking pass-by trips is appropriate based on the location of the commercial site within the development and the method of access.</p>	<p>This was discussed in our meeting on February 22, 2006 and it was our understanding from the meeting that after explaining pass-by trips, our method was appropriate.</p>
<p>3. On page 84 of the Traffic Impact Analysis the queue lengths for the intersection of Route 17 and 28 are indicating that the 95th percentile volume exceeds capacity and the queues may be longer. The queue indicated is 1101', but it appears it may be longer. Animation of the intersection through Synchro may be helpful in demonstrating the impact on this intersection.</p>	<p>The Synchro/SimTraffic Analysis will be provided to VDOT along with this comment/response letter.</p>
<p>4. The revised Traffic Impact Analysis and concept development plan are indicating a combined thru and right-turn lane on Route 28, but the Department would not support the elimination of the existing right-turn</p>	<p>The Developer will review the available ROW at this intersection and will provide a separate right turn, if possible within the existing right-of-way.</p>

lanes on Route 28 and combining them with the thru movement.	
<p>5. Page 30 of the Traffic Impact Analysis demonstrates that the following:</p> <p>a) Route 17 and 28 westbound approach is deteriorating from an LOS of "E" to LOS "F", but even with the mitigation measures has not been mitigated to meet background traffic conditions.</p>	As requested by VDOT, separate right turn lanes will be provided on VA 28 @ US 17 and the intersection and each approach LOS has been mitigated to meet background traffic conditions. See Proffer 11.1.3.
<p>5b) Route 28 and southwest access are deteriorating from an LOS "C" to LOS "F" with the development, but no mitigation measures have been provided. An asterisk is shown for the delay on the northbound approach. This is a new intersection being created by the subdivision, and needs to meet a minimum level of service of "C".</p>	This was discussed in our meeting on February 22, 2006 and the Developer has agreed to provide two outbound lanes as mitigation.
<p>5c) Route 28 and Oak Shade Road (Route 661) is shown with a level of service "F" at background and for total with the development, but the delay increase from 176.9 to 249.6 and no mitigation measures have been indicated. The improved results are incorrectly indicating a LOS of "E" rather than "F". VDOT is evaluating a project at this intersection to construct a left-turn lane, and the intersection could be evaluated with and without the turn lane.</p>	This was discussed in our meeting on February 22, 2006 and it was our understanding that VDOT has an ongoing project at this location and VDOT would make any necessary improvements.
<p>6. No resolution has been reached as to the proposed location of the Church Street and Route 28 intersection and its proximity to the intersection of Route 17.</p>	Since Church Street is designed as per the Comprehensive Plan, the proximity to US 17 along VA 28 has been accepted.
<p>7. Comments 14 and 15 from our November 16, 2005 letter only are indicated as being acknowledged, but</p>	Comment 14 was addressed in the TIS (Exhibits 11A and 11B have several intersections that the delay has not been provided in order to evaluate the increase in

do not appear to have been revised on the Traffic Impact Analysis.	delay between background and total traffic). Comment 15 will be addressed at Site Plan since the improvement and access plans will be prepared at that.
8. Sheet 7 of the Concept Development Plan does not indicate which of the streets will be constructed with each of the typical sections. Street widths will need to be determined based on anticipated traffic counts, and will not necessarily be the same width for all state maintained roads. Streets that are intended to be state maintained will need to be in conformance with the 2005 Subdivision Street Requirement Manual and Road Design Manual. Right-of-way widths should be even.	Please reference Sheet 9 of the GDP Talk to Bowman
9. We recommend a four lane divided road section for Church Street rather than a 4 lane undivided road.	A concept plan for Church Street has been prepared and submitted to Fauquier County. This concept will be discussed between Fauquier County and VDOT.

Sincerely,

WALSH, COLUCCI, LUBELEY, EMRICH &
TERPAK, P.C.

Wanda S. Suder, AICP
Planner

WSS/wss

cc: Andrew Vinisky, Project Manager, Centex Homes
Heather Himes, Centex Homes
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